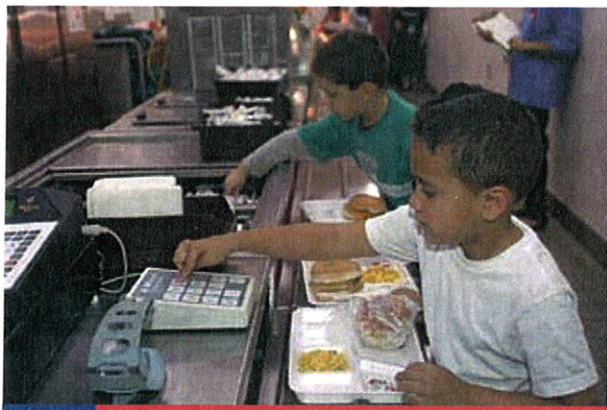




### FOOD SAFETY AND FOOD DEFENSE FOR SCHOOLS

Many schools and school districts across the country have established emergency management plans; however, these plans are often not comprehensive, practiced regularly or written in collaboration with the local community. It is recommended that schools adopt a multi-hazard approach to addressing their vulnerabilities. Food service operations in particular—including school cafeterias, central kitchens, warehouses or food delivery services—pose risks to schools. Emergency management plans should not overlook the possibility of food service operational disruptions such as equipment failures, loss of power or contamination.



When addressing food-related concerns, schools and school districts should do so in the context of the four phases of emergency management: 1) *prevention-mitigation*; 2) *preparedness*; 3) *response*; and 4) *recovery*. Because emergency management plans are strengthened through

collaboration with community partners, it is important that food safety and food defense, as with all other hazards addressed in a school or school district's emergency management plan, be addressed with the schools and school district's partners, including representatives from the public health sector, as a part of their *prevention-mitigation* work. Once a comprehensive plan is in place, its standards should be put into practice.

To prevent the duplication of school emergency management plans, school administrators should choose to delegate responsibility for food service emergency *preparedness* to the existing emergency management team within the school or district. The team should ensure that at least one appropriate food service stakeholder, such as the cafeteria manager, custodial staff manager or school nurse, serve as an active member.

### The Distinction Between Food Safety and Food Defense

Comprehensive plans include *food safety* and *food defense* management. Effective food safety planning protects against *unintentional* contamination as a result of inappropriate handling, storage or delivery of food or water, or situations that are beyond the control of the school, such as electrical outages that may lead to spoiled food or the loss of a clean water supply. Effective food defense planning, on the other hand, protects against intentional



contamination of the introduction of chemical or biological hazards into food, water or facilities by individuals seeking to harm students or staff.



### Assessing Food Service Operation Hazards

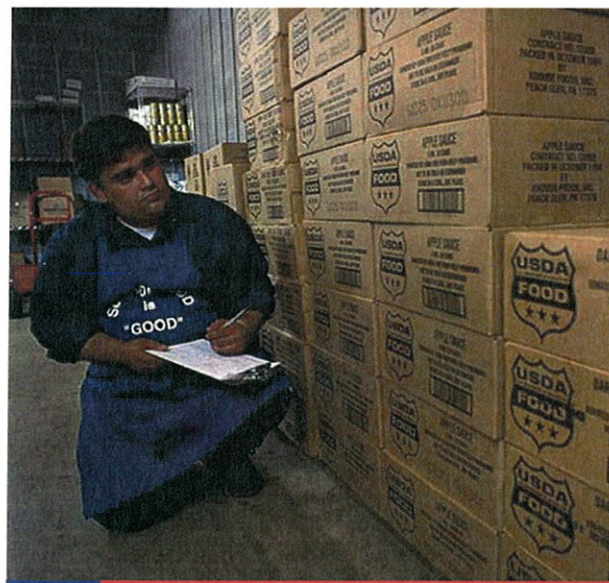
Based on information from the National Center for Education Statistics and the U.S. Department of Agriculture's (USDA) National Data Bank, ninety-three percent of the nation's schools and residential childcare facilities participate in the National School Lunch and School Breakfast Programs. To receive these program funds, schools must create a food safety plan based on Hazard Analysis and Critical Control Point (HACCP) principles for each of their food preparation and service facilities.

HACCP principles focus on each step of the food preparation process, from receiving to service. A part of the *prevention-mitigation* phase, hazard analysis involves the review of food service operations and processes and the identification of the places, or "critical control points," where food safety problems are most likely to occur. Corresponding control measures are then put into place to reduce or prevent contamination at those particular points.

The USDA recommends that schools make critical production areas a priority in their food safety emergency management planning. This includes anything in the food preparation process that is particularly sensitive to potential adulteration, such as bulk storage containers, blenders, mixers or large batch process operations.

### Implementing Measures to Enhance Food Safety and Food Defense

School and school district plans should adopt multiple measures to improve the safety of food stored within school facilities. Examples of *prevention-mitigation* measures include: locking storage doors; separating food and hazardous chemicals; maintaining an easily accessible emergency contact list; instituting a code system that controls access to food storage areas; and installing cameras in vulnerable areas. Schools may also consider creating a receiving process for delivery drivers that includes requiring photo identification and conducting random checks of goods to confirm that tampering has not occurred.





To protect food production areas, school food service managers or emergency management teams should adopt three basic measures:

1. Restrict access only to authorized staff;
2. Conduct background checks for staff; and
3. Implement operational controls, such as locking bulk storage containers.

The recent *Food Safety Training Needs Assessment Study*, prepared for the National Food Service Management Institute (NFSMI), found that kitchen access in schools is relatively unrestricted. In the study, Charlotte Oakley,

NFSMI executive director, stated, “Nine percent of respondents reported that no one was allowed in the food services area unsupervised.” The other 91percent allowed unsupervised, unrestricted entry at the following rates:

- Sales and Delivery Personnel: 40.5%
- Principal and Administrators: 39.5%
- Repair Personnel and Contractors: 29.8%
- Teachers and Coaches: 15.7%
- Office Staff: 13.2%
- School Nurse and Counselors: 11.1%

## **PLANNING FOR INTENTIONAL CONTAMINATION: BIOTERRORISM**

Bioterrorism concerns in the wake of the Sept. 11, 2001, terrorist attacks in New York City and Washington, D.C., prompted the USDA to conduct vulnerability assessments in 2004 and 2005 that focused on the intentional contamination of food served in schools, with particular attention paid to the preparation of ground beef and chicken nuggets—two popular offerings served in school cafeterias. The results showed weaknesses in all school food processes and facilities.

Based on the information garnered from the assessments, the USDA offers guidelines and recommendations to schools and school districts on how to mitigate food security threats. For example, it recommends that schools develop a multihazard emergency management plan that incorporates food defense strategies to

protect students and adults against intentional contamination, as well as traditional threats posed by the loss of electricity and water or food-borne hazards.

In addition, , the USDA, through its Food Nutrition Service, has commissioned the development of an array of resources for school planners (see the “Resources” section) and biosecurity checklists for schools. The checklists aid schools in prioritizing tasks and scheduling, implementing and monitoring activities. Checklists have been created to cover the following topics: choosing suppliers; receiving and inspection; storage areas; food storage; hazardous chemicals; food service equipment; food service personnel; food service and food preparation areas; outside school buildings; water and ice supplies; and mail handling.



## Incorporating Food Safety and Food Defense Into a School's Emergency Management Plan

Some school authorities may decide to develop a single district-wide emergency management plan that incorporates a food service strategy. The U.S. Department of Education's Office of Safe and Drug-Free Schools (OSDFS) as well as the USDA's Food and Nutrition Service (FNS) suggest that each school within a district also have an individual school plan that includes specific roles and responsibilities for staff within that school.

The USDA offers a guide, the *Emergency Readiness Plan: A Guide for the School Foodservice Operation*, to assist schools in developing the food service component of an emergency management plan. This guide recommends that the emergency readiness plan for food services include six steps:

**Step One:** Determine who will do what in the event of an emergency and then develop a contact directory as part of the preparedness phase. Roles and responsibilities for a food service emergency should be part of an individual school's and overall school district's Incident Command System (ICS).

An ICS is the standard strategy for responding to all school-related incidents, whether the school is the sole responder to emergencies or whether community emergency responders also participate. The ICS: outlines how to address and manage emergencies; provides an operating structure; offers guiding concepts, principles and protocols; and establishes a command center, command team and an incident commander.



**Step Two:** Identify disruptions that may hinder food service operations and determine alternative procedures. Although the recognition of potential hazards should be done throughout the four phases of emergency management planning, it is especially important during the prevention-mitigation phase.

**Step Three:** Develop a food service emergency readiness plan. The OSDFS recommends that this be done in the context of the school or school district's overall emergency management plan.

**Step Four:** Teach the components of the emergency readiness plan to food service staff as part of the prevention, response and recovery phases.

**Step Five:** Practice emergency readiness drills. Steps four and five can be integrated into ongoing preparedness activities within schools that include training and exercising that focus on key issues such as food security.

**Step Six:** Evaluate the school or district's emergency readiness plan's effectiveness and update the plans as needed. This is particularly



critical as schools or districts begin to recover from a food safety-related emergency, because it provides an opportunity for schools and districts to modify their plans to reflect lessons learned.

When developing plans for addressing food service operation vulnerabilities, "Think through your operation. Figure out where your weak

points are, and then fill those gaps," suggests Brenda Halbrook, director of the FNS' Food Safety Unit. "There is safety in numbers. When everybody's trained, knows what to look for, is alert, has practiced drills and knows how to take action, then food defense will become an integral part of school safety and security."

## RESOURCES

### National Food Service Management Institute

The USDA-funded NFSMI conducts training sessions via state child nutrition agencies, usually located in state departments of education, and provides a wealth of food service planning resources. NFSMI's toll-free help line is 1-800-321-3054.

Its Web site, <http://www.nfsmi.org>, offers the following resources:

- ***Emergency Readiness Plan: A Guide for the School Foodservice Operation***

Developed by the NFSMI through an agreement with the USDA's Food and Nutrition Service, this emergency response guide for school food services emphasizes emergencies caused by natural disasters or other factors.

The plan is available at: <http://www.nfsmi.org/Information/e-readiness.html> (accessed June 15, 2006).

- ***Responding to a Food Recall***

This NFSMI manual for food service directors and managers contains a checklist and procedures for responding to a recall of a contaminated food product.

The guide is available at: <http://www.nfsmi.org/Information/recallmanual.pdf> (accessed June 15, 2006).

- ***Biosecurity Video for Schools***

This online video reviews planning steps and provides footage from schools in Tennessee and Washington state that illustrate how districts are carrying out food defense measures.

The video is available at: <http://130.74.84.77/launcher.php?file=%2Fomo%2Fcmp%2Fbio.wmv> (accessed June 15, 2006).

### USDA Food and Nutrition Service

This USDA Web site, [http://www.fns.usda.gov/fns/food\\_safety.htm](http://www.fns.usda.gov/fns/food_safety.htm), offers a wide variety of information on food safety and security including:



## RESOURCES (continued)

- ***Guidance for School Food Authorities: Developing a School Food Safety Program Based on the Process Approach to HACCP Principles***

This guide provides a practical, step-by-step approach to developing a school food safety program and identifies the minimum elements that should be included.

The guide is available at: <http://www.fns.usda.gov/cnd/CNlabeling/Food-Safety/HACCPGuidance.pdf> (accessed June 15, 2006).

- ***A Biosecurity Checklist for School Foodservice Programs: Developing a Biosecurity Management Plan***

The checklist, provided by the Food and Nutrition Service, provides suggestions for improving the security of a school or district's food service operations.

It is available at: <http://schoolmeals.nal.usda.gov/Safety/biosecurity.pdf> (accessed June 15, 2006).

### ***The Food-Safe Schools Action Guide***

Available in hardcover and a downloadable format from the National Coalition for Food-Safe Schools (NCFSS), the guide provides a variety of tools—including a motivational PowerPoint presentation, video, needs assessment guide and how-to booklet—to help school staff make their schools “food-safe.” The NCFSS is an alliance of various national organizations, professional associations and government agencies dedicated to reducing food-borne illnesses in the United States by improving food safety in schools. The NCFSS Web site is intended as a one-stop gateway to Internet-based school food safety information and resources.

It is available at:  
<http://www.foodsafeschools.org/>  
(accessed June 15, 2006).

With special thanks to Brenda Halbrook, director, Food Safety Unit, FNS, USDA; Marion Hinnens, food safety specialist, FNS, USDA; Charlotte Oakley, executive director, NFSMI; and Theresa Stretch, food and nutrition specialist, NFSMI.

For information about the U.S. Department of Education's Emergency Response and Crisis Management grant program, contact Tara Hill at [tara.hill@ed.gov](mailto:tara.hill@ed.gov); Michelle Sinkgraven at [michelle.sinkgraven@ed.gov](mailto:michelle.sinkgraven@ed.gov); or Sara Strizzi at [sara.strizzi@ed.gov](mailto:sara.strizzi@ed.gov). Suggestions for newsletter topics should be sent to the ERCM TA Center suggestion box at [www.ercm.org](http://www.ercm.org).

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# Delegation of Tasks

*This list provides routine tasks of the foodservice operation. Use this list during the time of foodservice disruption. If the designated individual is unavailable to perform the task, the Emergency Response Team coordinator(s) should delegate the task to another individual.*

**Feeding Site** \_\_\_\_\_

**Food Service Director or Manager** \_\_\_\_\_

Task	Responsible Individual(s)
Manages the foodservice operation	_____
Communicates with:	
Local officials	_____
State officials	_____
Public officials	_____
Monitors food safety	_____
Answers phones	_____
Checks e-mail	_____
Schedules employees	_____
Maintains inventory of food, supplies, and bottled water	_____
Assists in menu planning based on inventory, available utilities, water supply, and storage space	_____
Reports and documents any loss of food, supplies, and/or equipment	_____
Maintains reimbursement records	_____
Determines available storage space for donations	_____
Schedules clean-up	_____
Schedules volunteers	_____
Writes thank-you notes to contributors and volunteers	_____
Prepares and presents certificates of appreciation	_____

# Standard Operating Procedure for an Electric Power Disruption

(continued)

Alternate inventory and menus available. .... ☐ Yes ..... ☐ No  
Emergency inventory available. .... ☐ Yes ..... ☐ No  
Manual can opener available. .... ☐ Yes ..... ☐ No  
Facility is equipped to operate on steam heat. .... ☐ Yes ..... ☐ No  
Facility is equipped to operate on gas power. .... ☐ Yes ..... ☐ No  
Alternate arrangements have been made ..... ☐ Yes ..... ☐ No

With whom \_\_\_\_\_

☐ Cash on Delivery    ☐ Purchase Order    ☐ Charge    ☐ Donation

Cellular phones ..... ☐ Yes ..... ☐ No

If Yes, cellular phone number(s) \_\_\_\_\_

Monitor refrigerator temperatures every \_\_\_\_\_ minutes.

Monitor milk cooler temperatures every \_\_\_\_\_ minutes.

Monitor freezer temperatures every \_\_\_\_\_ minutes.

Monitor internal temperatures of food every \_\_\_\_\_ minutes.

Use food within \_\_\_\_\_ hours; discard food within \_\_\_\_\_ hours.

Actions required when temperatures exceed minimum for food safety are: \_\_\_\_\_  
\_\_\_\_\_

Additional refrigeration storage is available ..... ☐ Yes ..... ☐ No

If Yes, where? \_\_\_\_\_

Additional freezer storage is available ..... ☐ Yes ..... ☐ No

If Yes, where? \_\_\_\_\_

The following will be washed and sanitized manually:

- Utensils ..... ☐ Yes ..... ☐ No
- Serving dishes ..... ☐ Yes ..... ☐ No
- Pans ..... ☐ Yes ..... ☐ No
- Smallware ..... ☐ Yes ..... ☐ No
- Equipment ..... ☐ Yes ..... ☐ No

Disposable serviceware available:

- Cups ..... Quantity \_\_\_\_\_
- Plates ..... Quantity \_\_\_\_\_
- Silverware ..... Quantity \_\_\_\_\_
- Bowls ..... Quantity \_\_\_\_\_
- Aluminum pans ..... Quantity \_\_\_\_\_